

IN THE CLAIMS:

Kindly amend claims 6-7, cancel claims 4-5, 8-12 and add new claims 13-19, as shown in the following listing of claims which replaces all previous versions and listings of claims.

1. - 5. (canceled).

6. (currently amended) A method for manufacturing thermal heads, comprising the steps of: providing a substrate having a first surface, a second surface opposite the first surface, a plurality of electrodes disposed on the first surface, and a plurality of pairs of heaters disposed on the first surface so that the heaters of each pair of heaters are disposed in confronting, spaced-apart relation to one another; mounting integrated circuits on the electrodes to provide a plurality of pairs of integrated circuits so that the integrated circuits of each pair are disposed in confronting, spaced-apart relation to one another; encapsulating the integrated circuits and the space between each pair of the integrated circuits with a resin; forming grooves in one of the first and second surfaces of the substrate to provide at least first and second ~~a plurality of~~ groups of separating lines so that ~~each of~~ the separating lines of the first group are ~~one of the groups~~ is disposed between a ~~respective pair~~ respective

pairs of the heaters and each of the second group of separating lines of another of the groups is are disposed in the space between a respective pair respective pairs of the integrated circuits; and cutting the substrate along the first group of separating lines formed by the grooves and along the second group of separating lines formed by the grooves and through the encapsulating resin to provide individual ones of the thermal heads each having one of the heaters ~~a heater~~, at least one of the integrated circuits for providing a drive signal to drive the heater, and a sealing element formed by the resin for protecting the integrated circuit.

7. (previously presented) A method for manufacturing thermal heads as claimed in claim 6; wherein the forming step comprises forming the grooves only in the second surface of the substrate using a laser scriber.

8. - 12. (canceled).

13. (new) A method for manufacturing thermal heads as claimed in claim 6; wherein the encapsulating step comprises the step of encapsulating the integrated circuits with the resin so that after the cutting step the sealing element of each of the thermal heads has a generally cliff-shaped surface portion having a height in the range of 0.1 mm to 1.5 mm from the first surface of the substrate.

14. (new) A method for manufacturing thermal heads as claimed in claim 13; wherein the cutting step includes the step of cutting through the encapsulating resin so that the cliff-shaped surface portion of the sealing element of each of the thermal heads does not protrude over a peripheral edge of the substrate.

15. (new) A method for manufacturing thermal heads as claimed in claim 13; wherein the cutting step includes the step of cutting through the encapsulating resin so that the cliff-shaped surface portion of the sealing element of each of the thermal heads is generally flat.

16. (new) A method for manufacturing thermal heads, comprising the steps of:

providing a substrate having a first surface and a second surface opposite the first surface;

disposing a plurality of pairs of heaters on the first surface of the substrate so that the heaters of each pair of heaters are disposed in confronting, spaced-apart relation to one another;

mounting a plurality of pairs of integrated circuits on the first surface of the substrate so that the integrated circuits of each pair of integrated circuits are disposed in confronting, spaced-apart relation to one another;

encapsulating each of the pairs of integrated circuits and the corresponding space therebetween with a protective resin; and

cutting the substrate from one of the first and second surfaces thereof along cutting lines disposed in the space between each of the pairs of heaters and along cutting lines disposed between each of the pairs of integrated circuits while cutting through the corresponding protective resin to provide individual ones of the thermal heads each having one of the heaters, at least one of the integrated circuits for providing a drive signal to drive the heater, and a protective sealing element formed by the protective resin for protecting the integrated circuit.

17. (new) A method for manufacturing thermal heads as claimed in claim 16; wherein the encapsulating step comprises the step of encapsulating the integrated circuits with the protective resin so that after the cutting step the protective sealing element of each of the thermal heads has a generally cliff-shaped surface portion having a height in the range of 0.1 mm to 1.5 mm from the first surface of the substrate.

18. (new) A method for manufacturing thermal heads as claimed in claim 17; wherein the cutting step includes the step of cutting through the protective resin so that the cliff-shaped surface portion of the sealing element of each of the thermal heads does not protrude over a peripheral edge of the substrate.

19. (new) A method for manufacturing thermal heads as claimed in claim 17; wherein the cutting step includes the step of cutting through the protective resin so that the cliff-shaped surface portion of the protective sealing element of each of the thermal heads is generally flat.